

# Work Order ID 75522

October-24-11 1:00:57 PM

**\*75522\***

Page 1

Item ID: D3609-1 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Doubler  
 Start Date: 24/10/2011 Start Qty: 4.00 **\*4\*** Cust Item ID:  
 Required Date: 07/11/2011 Req'd Qty: 4.00 **\*4\*** Customer:  
 Reference:

Approvals: Process Plan: M.L.J Date: 11/10/24 Tooling: \_\_\_\_\_ Date: \_\_\_\_\_  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_  
 Run Start **\*NR1\***  
 Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D3609	D

100 FLOW WATER JET 0.00  
**\*100\***  
 Waterjet Memo 0.00  
 FLOW CNC Waterjet 1-Cut as per Dwg D3609  
304.032 Dwg Rev: B  
 Prog Rev: B  
 2-Deburr if necessary B11-10-29

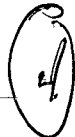
110 QC2- Inspect parts off machine FAI/FAIB 0.00  
**\*110\***  
 QC Memo 0.00  
 Quality Control

120 QC8- Inspect parts - second check 0.00  
**\*120\***  
 QC Memo 0.00  
 Quality Control

B11-10-24

B11-10-26

M 11 10 31



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 75522

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 Required Date: 07/11/2011 Req'd Qty: 4.00 **\*4\*** Customer:  
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Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
121 <b>*121*</b> Brake NC Brake NC	Form as per dwg  Memo USE DT9760 TOOL	0.00  0.00	SB	11/11/10		(8)			
122 <b>*122*</b> Small Fab Small Fab	Memo 1- TRIM AS PER DWG USING GUIDE LINES	0.00  0.00	SB	11/11/10		(8)			PTD
123 <b>*123*</b> QC Quality Control	QC5- Inspect part completeness to step on W/O  Memo	0.00  0.00		11/11/10		(X8)			

W/O: 75522

## WORK ORDER CHANGES

DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D3609-1 PAR #: \_\_\_\_\_ Fault Category: Production NCR: Yes No DQA: ✓ Date: 11/14/15  
 Resolution: see as is Disposition: see as is QA: N/C Closed Date: 11/11/16

NCR: 11-981		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
11.11.03	121	0.53 DIM IS OK ON ONE HALF OF D3609-1 AFTER FORMING AND ROLLING BETWEEN 0.45 TO		ACCEPTABLE DEVIATION ON THE BASIS THAT THE PARTS (4) ARE OFF TOLERANCE BY -0.05"	S 11/11/03	S 11/11/03		S 11/11/03
		0.46 ON THE OTHER HALF.		AND WOULD STILL FIT ON THE AIRCRAFT.				S 11/11/03
		RC: PART MOVED WHILE FORMING; TOOLING MIGHT NOT BE ADEQUATE FOR MFG 2 PARTS AT ONCE.						S 11/11/03

NOTE: Date &amp; initial all entries

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October-24-11 1:00:57 PM

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 Required Date: 07/11/2011 Req'd Qty: 4.00 **\*4\*** Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	Identify as per dwg & Stock Location: _____	0.00	PPP 412-775-075			8011-11-14			
<b>*130*</b>		0.00							
Packaging	Memo								
Packaging									
140	QC21- Final Inspection - Work Order Release	0.00							
<b>*140*</b>		0.00							
QC	Memo								
Quality Control									

11/11/15  
 (8)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

October-24-11 1:01:02 PM

Page 1

Work Order ID: 75522

**\*75522\***

Parent Item: D3609-1

**\*D3609-1\***

Parent Item Name: Doubler

Start Date: 24/10/2011

Required Date: 07/11/2011

Start Qty: 4.00

Required Qty: 4.00

## Comments:

IPP Rev:A New Issue 07-03-26 JLM

IPP Rev:B 08-12-11 as per ECN08-577 DD verified by:EC IPP REV:C

AS PER REV C JLM 11-05-04 VERIFIED BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

M304S22GA

Purchased

No

100

sf

123.3600

1.1769

4.955368

**\*M304S22GA\***

304/316 .032 Sheet

**\*\***

B11-10-26

## Location

## Loc Qty

## Loc Code

020

3.3

109057

3.3

MAT020

120.06

117379

30.06

118271

84

118400

6

118271

5

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

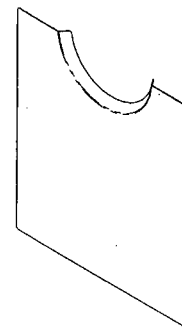
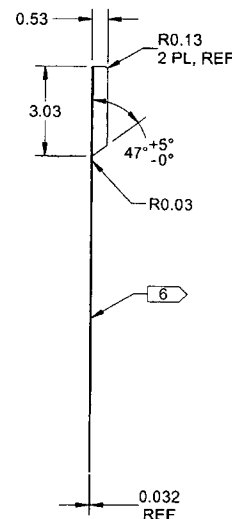
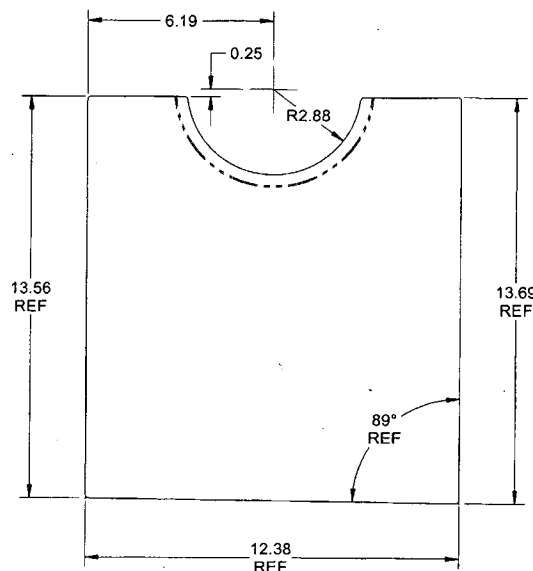
**NOTE:** Date & initial all entries



SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT

WITHOUT NOTICE  
WORK ORDER  
NO. 75522 M.L.J

11110124



**D3609-1 DOUBLER**

**NOTES:**

- 1) MATERIAL: MAKE FROM D3609-1F FLAT PATTERN
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
- 7) WEIGHT: 1.46 lbs
- 8) FORM USING DT9763 AND TRIM PER PHANTOM LINE ON SHEET 2

**RELEASED**  
R 2011-10-04  
JW

REV.	DESCRIPTION	BY	DATE
D	REVISE FLAT PATTERN SYMMETRY; R2.75 WAS R2.63 (ZN C6-2)	RF	11.09.20
C	2.88 WAS 2.98 (ZN C5-1); 3.03 WAS 3.20 (ZN C4-1); 0.53 WAS 0.50 (ZN D4-1); ADD ANGLE TOLERANCE (ZNC3-1); REVISE D3609-1F	RF	11.06.07
B	ADD BEVEL (ZN C3-1); ADD FLAT PATTERN (ZN B4-2)	RF	11.04.28
A	NEW ISSUE	MB	07.04.11
DESIGN	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA DRAWING NO. <b>D3609</b> TITLE <b>DOUBLER</b> DATE <b>11.09.20</b>		
DRAWN			
CHECKED			
MFG. APPR.			
DE APPR.			
DATE	11.09.20	REV. D	SHEET 1 OF 2
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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

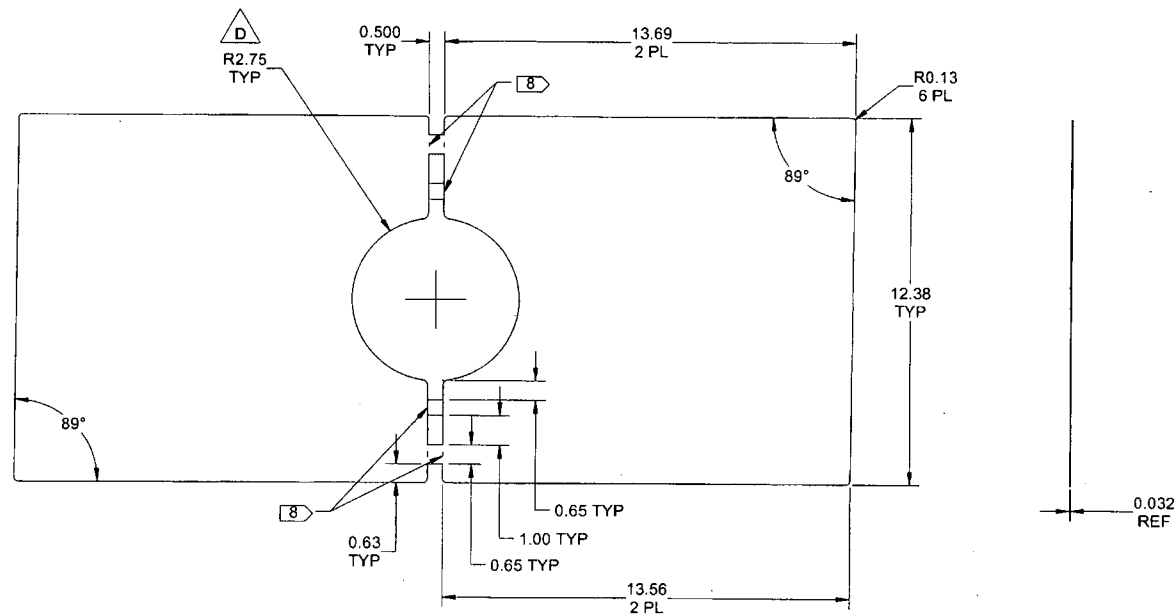
Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

75522



RELEASED  
2011-10-04

NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET, 22 GAUGE  
PER MIL-S-5059  
OR AMS 5513 (304)  
OR AMS 5524 (316)  
OR ASTM 240  
OR ASME SA240  
PER DART SPEC M304S22GA

- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 2.93 lbs
- 8) FORM USING DT9763 AND TRIM PER PHANTOM LINE

**D3609-1F FLAT PATTERN**  
(MAKES 2 PARTS)



DESIGN		<b>DART AEROSPACE LTD</b>	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. D
MFG. APPR.		D3609	SHEET 2 OF 2
APPROVED		TITLE	SCALE
DE APPR.		DOUBLER	NTS
DATE	11.09.20	<small>COPYRIGHT © 2007 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

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Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

DART AEROSPACE LTD		Work Order: 75522
Description: DOWEL		Part Number: D3609-1
Inspection Dwg: D3609-1. Rev: D		Page 1 of 1

# FIRST ARTICLE INSPECTION CHECKLIST

•  
X



Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
.032	$\frac{1}{2}$	.010	.031	R	V	HB2
12.38	$\frac{1}{2}$	.030	12.38	R	T	BD1
13.69	$\frac{1}{2}$	.030	13.69	R	T	
13.56	$\frac{1}{2}$	.030	13.56	R	T	
.65	$\frac{1}{2}$	.030	.666	R	V	
1.00	$\frac{1}{2}$	.030	1.001	R	V	
.63	$\frac{1}{2}$	.030	.63	R	V	
.500	$\frac{1}{2}$	.010	.500	R	V	

Measured by: <u>B</u>	Audited by: <u>[Signature]</u>	Prototype Approval:
Date: <u>11-12-20</u>	Date: <u>11/10/31</u>	Date:

Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/JLM	

